

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: September 08, 2003

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-177- Bonneville – Hood River)

TO: Elizabeth Johnson
Natural Resource Specialist - TFN/The Dalles

Proposed Action: Vegetation Management for Bonneville – Hood River 115 kV transmission line.

Location: Project location is in BPA Redmond Region in Hood River County, Oregon.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to clear targeted vegetation within the Right-of-Way, along access roads and around towers that may impede the operation and maintenance of the subject transmission lines. See Section 1.4 of the attached checklists for a complete description of the proposed action.

Analysis: Please see the attached checklist for the resources present. Applicable findings and mitigation measures are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

The work will take place along the Bonneville – Hood River 115 kV transmission line from 1/2 to the Hood River Substation. Easement width is 150 feet along the ROW.

Tall growing vegetation of the types listed in Section 1.2 of the attached checklist are present in the ROW and will soon pose a hazard to the lines. Project involves clearing tall growing vegetation and treatment of the associated stumps and re-sprouts with approved herbicides to ensure that the roots are killed.

Vegetation that will grow tall will be selectively eliminated before it reaches a height or density to begin competing with low-growing species.

Cut-stump or follow-up spot herbicide treatments on species that re-sprout will be carried out to ensure that the roots are killed (follow-up treatment may take place during the next growing season). Herbicides will not be applied using high volume methods to ensure that non-target species are not treated.

2. Identify surrounding land use and landowners/managers and any mitigation.

The project crosses rural, industrial forest, State lands/parks, Forest Service, and residential lands. Landowners will be contacted by letter about 3 weeks prior to cutting the brush. Door to door contact will be made where it is warranted. Door hangers have been used at properties where special treatments are anticipated. Conversations with property owners on site, emails, and phone calls are all used.

Copies of the checklist will be sent to the Forest Service and State Parks. The cover letter will ask for any other information that needs to be considered. Any concerns raised will be discussed, mitigated or avoided.

3. Identify natural resources and any mitigation.

Water resources identified include intermittent creeks and perennial streams. Mitigation measures include selective cutting and herbicide use in addition to the use of buffer zones as described in Sections 3.1 and 3.2 of the attached checklist. These mitigation measures are consistent with the EIS.

ESA streams and Rivers: Target vegetation within 40 feet of the conductor & within 200-400 feet slope distance of either side of stream channel will be cut. Streams located in steep draws with >120 feet to the conductor. Minimal number of trees will be cut in these areas using the selective cut method. Not likely to affect essential fish habitat or ESA listed fish.

Terrestrial Species Bald Eagle: One Bald Eagle nesting area was found through the BPA GIS and the Washington DNR Natural Heritage databases.

Terrestrial Species Northern Spotted Owl: Northern Spotted Owl habitat exists along the transmission right of way from 1/2 - 17/2.

Terrestrial Species Long Bearded Hawkweed (USFS sensitive plant species): Long Bearded Hawkweed has been found along the transmission lines from 9/7-9/10.

Terrestrial Species Mitigation Bald Eagle:

To maintain a no effect on Bald Eagles, no vegetation management activity within .25 mile of the Bald Eagle nesting site between January 1st to August 15th unless a State or Federal wildlife biologist has determined that the nest site to be unoccupied. No restrictions after August 15th.

Terrestrial Species Mitigation Northern Spotted Owl:

To maintain a no effect on Spotted Owl, suspend vegetation management activities within 0.4 km (0.25 mi.) of spotted owl critical habitat between March 1 and June 30, unless the owls are shown not to be nesting.

Terrestrial Species Mitigation Long Bearded Hawkweed (USFS sensitive plant species):

No work to be conducted on the ROW during seasonal closure periods 4/1 – 9/31. No herbicide treatment within 50 feet of plants.

Visually Sensitive Areas:

Several visually sensitive areas were identified and addressed in the “Bonneville - Hood River Vegetation management Environmental Assessment (EA) DOE/AE 1257”. The EA was developed in coordination with the US forest service. Mitigation measures are summarized in Section 3.5 of the attached checklist.

Cultural Resources: There are no known Cultural Resources within the project area and no soil disturbing activities are planned at this time. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribe will be contacted as well as the BPA Environmental Specialist.

4. *Determine vegetation control and debris disposal methods.*

Treatment of project area will consist of mowing access roads & structures and selected areas with tall growing vegetation. Handcutting will be performed in all other areas of ROW vegetation control. Garlon 4 or 3A will be mixed with forest crop oil and spot sprayed on all stumps within 15 minutes of cutting except in riparian areas. Only aquatic formulations of glyphosate will be spot sprayed in riparian areas on tall growing tree stumps once cut. A foliar application of Garlon 3A or 4 will be used on noxious weeds. All herbicides will be mixed and applied according to label.

5. *Determine revegetation methods, if necessary.*

No ground disturbance or exposed soil is expected during the duration of this project. However, if soil disturbance occurs during the project, the area will be reseeded.

6. *Determine monitoring needs.*

The project area will be inspected during treatment. In addition, it will be reviewed during routine patrols by the line crew and within one year by the NRS.

7. Prepare appropriate environmental documentation.

Findings: This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. This Supplement Analysis also finds the proposed actions will have no effect on threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ John Howington

John Howington
Physical Scientist – KEPR-4

CONCUR: /s/ Thomas C. McKinney
Thomas C. McKinney
NEPA Compliance Officer

DATE: 09/08/2003

Attachment

cc:

L. Croff - KEC-4
T. McKinney - KEC-4
J. Meyer - KEP-4
F. Walasavage – KEP/Celilo
J. Sharpe - KEPR-4
P. Key - LC-7
J. Hilliard Creecy - T-DITT2
D. Hollen - TF/DOB-1
R. Fouse Jr. – TFR/Redmond
R. Melzer – TFR/Redmond
W. Banker – TFRK/The Dalles
Environmental File – KEC-4
Official File – KEP (EQ-14)

VEGETATION MANAGEMENT CHECKLIST

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

See Handbook — [List of Right-of-way Components](#) for checkboxes and the requirements for the components [Rights-of-way](#), and .

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Bonn-Hood River 1/2 to Sub	115 kV 24 miles	150' wide	24

Right-of-Way – clearing in right-of-way

Transmission Structures – clearing around

Access Road clearing - approximate miles – 20

Work shall commence October 2003 and completed by September 2004.

Rights-of-way Requirements

Control all tall-growing species that are now or would be a hazard to the line.

Cut stumps are not to be taller than 4 – 6 in.

Control all tree and brush species within about 50 ft. of transmission structures. Cut stumps are not to be taller than 2 – 4 in. Pull all debris and slash out of the 50-ft. area around transmission structures.

Access roads Requirements

Control all vegetation except grasses, to enable safe driving.

The access road is to be 14' wide with a 15-ft.- high clearance. Limbs should not hang down into the access road.

Cut stumps are not to be taller than 2 – 4 in. in the roadbed.

Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.

Trim limbs back as flush to the trunk as possible when trees are rooted outside of the access road.

Pull all debris back from the access road as prescribed.

1.2 Describe the vegetation needing management.

See handbook — [List of Vegetation Types, Density, Noxious Weeds](#) for checkboxes and requirements.

Conifers (Doug fir, cedar, hemlock, etc). Hardwoods (wild cherry, alder, maple, & willows) – low to medium

Noxious weeds – Scotch Broom & knapweed. Contractor is required to control scotch broom on all lands within right-of-way and along access roads, unless otherwise specified. Scotch broom will be treated with a foliar application of an approved herbicide and applied according to label requirements. Herbicide and surfactant/adjuvant will be approved by COTR prior to application. All buffers will be maintained according to buffer table in EIS. Scotch broom will be controlled by herbicide on USFS lands. Hood River County Weed Dept. is also contracted to manage noxious weeds on these lands through an integrated management methods.

1.3 List measures you will take to help promote low-growing plant communities. If promoting low-growing plants is not appropriate for this project, explain why. See Handbook — [Promoting Low Growing Plants](#) for requirements and checkboxes.

Bonneville's overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation. In some areas where the line is w/in 40' or less distance to ground, this is not possible.

- Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed.
- Cut-stump or follow-up herbicide treatments on resprouting-type species will be carried out to ensure that the roots are killed.
- Vegetation that will grow tall will be selectively eliminated *before* it reaches a height or density to begin competing with low-growing species
- Desirable low-growing plants will not be disturbed. Only selective vegetation control methods that have little potential to harm non-target vegetation will be used.

1.4 Describe overall management scheme/schedule.

See Handbook.

Initial entry – This project is a maintenance entry. Only tall growing conifer and hardwood will be basal and/or stump treated and scotch broom foliar sprayed. This area was cut/treated in 1998-1999. An environmental assessment was completed in 1998 with the USFS Scenic Area Office, which allowed herbicides to be used on their lands.

Subsequent entry's – Every four years, the right-of-way will require a maintenance treatment.

Future cycles - Same as subsequent entry.

2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

2.1 List the types of landowners and land uses along your corridor.

See Handbook — [List of Landowners/Managers/Uses](#) for a checkbox list.

Private – rural

USFS – Columbia Gorge National Scenic Area

OR State Parks – Wygant, Seneca & Vinzenz Lausmann

Corps of Engineers – Bonneville Dam

2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., doorhanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.

See Handbook — Methods for Notification and Requesting Information for requirements.

Landowner letters will be sent out 3 weeks prior to commencement of operations. Other methods will include doorhangers, phone call, e-mail, and/or individual meetings to 1) notify landowners where Bonneville has a right-of-way easement to inform them of upcoming activities, 2) request any information that needs to be considered.

Copies of the checklist will be sent to State Parks & Forest Service. Will discuss project with USFS special uses people as well as send a cover letter asking for any other info that needs to be considered. Any concerns brought to my attention will be discussed, mitigated or avoided.

Will meet on site with Corps personnel to discuss trimming several trees on row. Will follow their management prescription.

2.3 List the specific land owner/landuse measures — determined from the handbook or through your consultations with the entities — that will be applied.

See handbook — [Requirements and Guidance for Various Landowners/Uses](#) for requirements and guidance, also [Agricultural](#), [Residential/Commercial](#), [Tribal Reservations](#), [FS-managed lands](#), [BLM –managed lands](#), [Other federal lands](#), [State/ Local Lands](#).

For all lands:

Prevent the spread of noxious weeds by cleaning seeds from equipment before entering cropland.

If on grazing lands and there is potential for pine needle poisoning, do not lop and scatter pine tree vegetative debris—machine-chip or haul debris off-site.

If using herbicides on grazing lands, comply with grazing restrictions as required per herbicide label.

If using herbicides near crops for consumption, comply with pesticide-free buffer zones, if any, as per label instructions.

For rights-of-way adjacent to agricultural fields, observe appropriate buffer zones necessary to ensure that no drift will affect crops.

Forest Service and State Parks:

Discuss the project w/USFS & State Park representatives and address specific land-use or environmental resources along the corridor that need consideration, including appropriate mitigation measures identified in this EIS. Any recommended mitigation will be identified on maps, included in the contract, and monitored.

2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.

See handbook — [Landowner Agreements](#) for requirements.

Case Nos. 1990366, 1990406, 1990365, 19930193, 1990368, 1990367, 1990364 - Tree agreements for landowners. Each tree agreement will be reviewed and discussed with landowner to make sure they want to continue managing their trees.

2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure’s to take due to the informal use.

See handbook — [Casual Informal Use of Right-of-way](#) for requirements.

Hunters/recreationists may occasionally use the row. The planned entry is not expected to affect their use.

2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.

See handbook — [Other Potentially Affected Publics](#) for requirements and suggestions.

No others.

3. IDENTIFY NATURAL RESOURCES

3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used.

See Handbook — [Water Resources](#) for requirements for working near water resources including buffer zones.

General requirements:

Leave vegetation intact, where possible.

Any discharge of material (displaced soils, and in certain circumstances, vegetation debris) within a water of the U.S. may be subject to U.S. Army Corps of Engineers regulations under the Clean Water Act.

Do not permit debris from tree falling, cutting, or disposal to fall into or be placed in any watercourse, spring, pond, lake, or reservoir, unless there is approval from the appropriate authorities for stream habitat projects.

For all methods using machinery or vehicles (i.e. chainsaws, trucks, graders) keep the equipment in good operating condition to eliminate oil or fuel spills.

Do not wash equipment or vehicles at a stream.

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer
To	From						
2/4	2/5	Eagle Cr.	Yes	Cut Individual trees if w/in 40' of lines	None		400+ feet each side. Spanned Canyon.
3/1	3/2	Ruckle Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A		35 feet both sides. Spanned Canyon.
4/4	4/5	Rudolph Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides.
6/11	6/12	Herman Cr.	Yes	Cut Individual trees if w/in 40' of lines	None		200 feet each side. Steep Canyon.
11/2	11/3	Gorton Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon

11/4	11/5	Harphan Cr.	No	Cut/stump treat	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides.
133	13/4	Summit Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
13/8	13/9	Lindsey Cr.	Yes	Cut Individual trees if w/in 40' of lines	None		400+ feet each side. Spanned Canyon.
14/4	14/5	Wonder Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
14/5	14/6	Warren Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
14/7	14/8	Cabin Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
15/2	15/3	Starvation Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
16/3	16/4	Viento Cr.	Yes	Cut Individual trees if w/in 40' of lines. Treat stumps.	None		400+ feet each side. Spanned Canyon.
17/6	18/1	Perham Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon

18/3	18/4	Intermittent Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
18/5	18/6	Mitchell Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
20/2	20/3	Post Canyon Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
20/5	20/6	Intermittent Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
21/3	21/4	PhelpsCr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides. Spanned Canyon
23/6	23/7	Indian Cr..	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides.
23/9	23/10	Indian Cr.	No	Cut Individual trees if w/in 40' of lines. Treat stumps.	Rodeo or Garlon 3A	Spot Spray	35 ft. – both sides.

3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).

See Handbook — [Herbicide Use Near Irrigation, Wells or Springs](#) for buffers and herbicide restrictions.

None identified.

3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.

See Handbook — [Determining Threatened or Endangered Plant or Animal Species](#) for requirements and determining presence.

Span		T&E Species	Method/mitigation or avoidance measures
To	From		
1/2	17/2	Spotted Owl Habitat Area #138	No work to be conducted on the row during seasonal closure period 3/-9/30.
2/4 6/11 13/8 16/4	2/2 6/12 13/9 16/3	ESA Listed Fish Eagle Cr., Herman Cr., & Lindsey Cr. Vento Creek	Target vegetation w/in 40' of the conductor & w/in 200-400 ft. slope distance of either side of stream channel will be cut. Streams located in steep draws with >120 ft. to conductor. Minimal # of trees to be cut in this area w/this mtce application. Likely not to affect sensitive habitat or ESA listed fish.
13/8	14/3	Bald Eagle	No work to be conducted on the row during seasonal closure period 10/31-8/15.

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.

See Handbook — [Protecting Other Species](#) for requirements.

9/7	9/10	Long bearded hawkweed – USFS sensitive plant species	No work to be conducted on the row during seasonal closure period 4/1-9/31. No herbicide treatment w/in 50' of plants..
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Where possible and appropriate, leave brush piles for small animal habitats.

Where possible and appropriate, top and leave tall dead trees (snags) in place for wildlife habitat.

3.5 List any visually sensitive areas and the measures to be taken at these areas.

See Handbook — [Visual Sensitive Areas](#) for requirements.

As stated in the Bonneville – Hood River Vegetation Management Environmental Assessment (EA) DOE/EA 1257, USFS landscape architect has reviewed row for visually sensitive areas. BPA & USFS agreed that no broadcast or aerial spraying would be performed on row. Spot spraying eliminated the potential to create large areas of dead vegetation that would detract from the visual quality of the area.

3.6 List areas with cultural resources and the measures to be taken in those areas.

See Handbook – [Cultural Resources](#) for requirements.

None identified. No soil disturbing activities planned.

3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.

See Handbook – [Steep/Unstable Slopes](#) for requirements.

Numerous steep slopes exist within the row. Low growing plant communities are established and common on these slopes. Only tall growing vegetation and scotch broom will be cut or treated. No ground (soil)-disturbing mechanical equipment will be used on slopes over 20%.

Perform mechanical clearing when the ground is dry enough to sustain heavy equipment.

Table III- 4: Mechanical Buffer Zones

Ground-disturbing Mechanical Methods	Buffer Width From Habitat Source, i.e., Stream or Wetland
Slopes under 20%	10.7 m (35 ft.)*
Slopes over 20%	No disturbance

The buffers in this table are to be used unless other agencies, local authorities, or T&E consultations require more strict buffers. In cases of more strict local buffers, those would apply.

*Natural Resources Conservation Service (NRCS), Conservation Practice Standard, Riparian Forest Buffer, Code 391A, 1997

3.8 List areas of spanned canyons and the type of cutting needed.

See Handbook – **Spanned Canyons** for requirements.

Do not use ground (soil)-disturbing mechanical equipment to clear on slopes over 20%.

Avoid using granular or total vegetation management (non-selective) herbicides on slopes over 10%.

Do not use herbicides with a high potential for surface runoff.

Perform mechanical clearing when the ground is dry enough to sustain heavy equipment.

Reseed or replant seedlings on slopes with potential erosion problems and/or take other erosion control measures as necessary.

Numerous spanned canyons throughout row. Contractors will be directed to cut only individual tree within 40’ of conductors in the spanned canyons. The amount of cutting/spot spraying in these areas will be minimal.

4. DETERMINE VEGETATION CONTROL METHODS

Treatment of project area will consist of mowing access roads & structures and selected areas with dense tall growing vegetation. Handcutting will be performed in all other areas of row veg control. Garlon 4 or 3A will be mixed with forest crop oil and spot sprayed on all stumps within 15 minutes of cutting except in riparian areas. Only aquatic formulations of glyphosate or Garlon 3A will be spot sprayed in riparian areas on tall growing tree stumps once cut. A foliar application of garlon 3A or 4 will be used on noxious weeds and poison oak. All herbicides will be mixed and applied according to label.

4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — **Manual, Mechanical, Biological, Herbicides-spot, Herbicides-localized, Herbicides-broadcast, and Herbicides- aerial** for requirements for each of the methods.

Below are requirements for the various vegetation control methods.

For all methods using machinery or vehicles (i.e. chainsaws, trucks, graders), keep the equipment in good operating condition to eliminate oil or fuel spills or excess exhaust.

Do not wash equipment or vehicles at a stream.

Manual Requirements

When crews are working during the fire season (defined by the fire protection district with jurisdiction in the area), each crew shall have the proper fire-suppression tools and materials, as required by the responsible fire control agency.

Equip power-cutting tools with approved spark arresters.

Cut conifers below the lowest live limb to eliminate the continued growth of lateral branches.

If planning follow-up herbicide stump treatment, apply herbicides as soon as possible after cutting. (If herbicide is not applied soon after the vegetation has been cut, it may be best to wait until resprouting has occurred and then spray by foliar technique.)

For safety, cut all brush stumps flat where possible. (Angular cuts leave a sharp point that could cause injuries if fallen upon.)

For cutting trees close to "live" power lines, use only qualified personnel.

Mechanical Requirements

Mechanical methods include the use of chopper/shredders, walking brush controllers, mowers, feller-buncher machines, roller-choppers, and blading.

Do not use ground-disturbing mechanical equipment to clear on slopes over 20%.

Perform soil-disturbing or heavy mechanical clearing when the ground is sufficiently dry to sustain heavy equipment and excessive rutting will not occur.

Use measures to control the spread of noxious weeds.

Do not use ground-disturbing mechanical methods in areas with T&E plant species unless determined appropriate through consultations.

Do not use ground-disturbing mechanical methods in areas with cultural resources unless determined appropriate through consultations.

Do not use ground-disturbing mechanical methods in riparian areas.

Herbicides Requirements

Follow product label directions, as required by FIFRA, including "mandatory" statements (such as registered uses, maximum use rates, application restrictions, worker safety standards, restricted entry intervals, environmental hazards, weather restrictions, and equipment cleaning).

Follow all product label "advisory" statements (such as techniques for mixing, applying and cleaning within the mandatory requirements, recommendations for protection clothing, guidelines for differing soil types, etc).

Always have a copy of the herbicide label and Material Safety Data Sheets (MSDS) at work sites during all mixing and applications.

Ensure that all herbicide applications are conducted in the presence of a licensed applicator valid for the state where the work is located.

Keep records of each application, including the active ingredient, formulation, application rate, date, time, location, etc. Records must be available to state and Federal inspectors, and may need to be supplied to landowners (e.g. Forest Service and WA DNR)..

Ensure the use of EPA-approved herbicides that have been reviewed by Bonneville for effectiveness and environmental considerations.

Never leave herbicides or equipment unattended in unrestricted access areas.

See **Water Resources** for herbicide mitigation measures near wetlands, streams, rivers, ponds, and wells.

Before application, thoroughly review the right-of-way to identify and mark, if necessary, the buffer requirements.

Protect drinking water sources by following all buffer zone restrictions.

Observe restricted entry intervals specified by the herbicide label and post public warning signs where required.

Spot Stump Application Requirements

A spot application is treatment of individual plant(s) with the least amount of chemicals possible. Stump treatments are done by hand (squirt bottle or canister) or by backpack.

For spot treatment, cut stumps flat, 15.2 – 20.3 cm (6 – 8 in.) above ground (except for access roads and around structures sites which should be 5 – 10 cm (2 – 4 in.) above ground) to facilitate treatment and reduce trip and fall hazards. Treatment should occur within 8 hours to prevent resprouting.

Directly spray the root collar area, sides of the stump, and/or the outer portion of the cut surface, including the cambium, until thoroughly wet, but not to the point of runoff. This would avoid, or minimize, deposition to surrounding surfaces.

5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — **Debris disposal** for a checkbox list and requirements.

Lop and Scatter (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

Mulch – Limbs, small boles of trees will be mulched with mowers to reduce slash loading.

5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — **Reseeding/replanting** for requirements.

No ground disturbance or exposed soil expected.

5.3 If not using native seed/plants, describe why.

No ground disturbance or exposed soil expected.

5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.

NA

6. DETERMINE MONITORING NEEDS

See handbook — **Monitoring** for requirements.

Right-of-way will be visited during operations and late summer after contractor has completed work to determine if target vegetation was cut and treated effectively, whether desired results were achieved for riparian as well as non-riparian areas and if mitigation measures were appropriately utilized and effective.

6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

Annually field verify results of previous veg. mgmt schemes and look for new alternatives for treatment, etc.

6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.

Need to annually review TLM patrol data as well as annual site visits.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — [Prepare Appropriate Environmental Documentation](#) for requirements.

Bonneville – Hood River Veg. EA on file. Checklist and plan/profile maps will be submitted to environmental staff to ensure compliance with BPA’s Veg. Mgmt. EIS. Upon approval, a Supplemental Analysis will be issued by BPA’s NEPA compliance officer .

7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are “substantial”.

No project impacts or work to be done other than what is disclosed in EIS.

7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.

No other NEPA documentation necessary.